

Claims

1. A method for calendering a fibrous web (W) in a calender (10) which includes at least two roll stacks (11L, 11R) which each have at least three rolls (1-5), and in which calender the fibrous web is passed to run between each roll pair (1, 2; 2, 3; 3, 4; 4, 5) of each roll stack, **characterized** in that in order to produce a selectable fibrous web grade, at least one roll pair (1, 2; 2, 3; 3, 4; 4, 5) in at least one roll stack (11L, 11R) is arranged to be in nip contact to form a nip (NC) that calenders the fibrous web (W).
2. A method as claimed in claim 1, **characterized** in that at least one roll pair (1, 2; 2, 3; 3, 4; 4, 5) in each roll stack (11L, 11R) is arranged to be in nip contact to form in each roll stack at least one nip (NC) that calenders the fibrous web.
3. A method as claimed in claim 1 and/or 2, **characterized** in that by increasing the number of calendering nips (NC) in the calender (10), higher-quality paper grades, such as SC-A, SC-B, LWC and WFC grades, are produced and that by decreasing the number of calendering nips (NC) in the calender (10), lower-quality paper grades, such as NP, SC-C and/or MFC grades, are produced.
4. A calender which includes at least two roll stacks (11L, 11R) which each have at least three rolls (1-5) and in which calender (10) a fibrous web (W) has been passed to run between each roll pair (1, 2; 2, 3; 3, 4; 4, 5) of each roll stack, **characterized** in that in order to produce a selectable fibrous web grade, at least one roll pair (1, 2; 2, 3; 3, 4; 4, 5) in at least one roll stack (11L, 11R) is in nip contact, whereby at least one nip (NC) is formed that calenders the fibrous web.
5. A calender as claimed in claim 4, **characterized** in that at least one roll pair (1, 2; 2, 3; 3, 4; 4, 5) is in nip contact in each roll stack (11L, 11R) of the calender (10) to form in each roll stack (11L, 11R) at least one nip (NC) that calenders the fibrous web (W).

6. A calender as claimed in claim 4 and/or 5, **characterized** in that the calender (10) is selected from the group comprising OptiLoad, Janus and Prosoft calenders.

5 7. A calender as claimed in claim 6, **characterized** in that the roll combination in successive roll stacks (11L, 11R) of the calender (10) is selected from the group comprising 2x3, 2x5, 2x7, 3+5, 5+5, 5+7 rolls.

10 8. A calender as claimed in any one of claims 4 to 7, **characterized** in that the fibrous web (W) can be calendered on the calender (10) while all nips are operating, so that all roll gaps in each roll stack (11L, 11R) of the calender (10) are closed and form closed nips (NC), or while one/some of the nips is/are operating, so that at least one roll gap in at least one roll stack is an open roll gap (NO).

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9. A calender as claimed in any one of claims 4 to 8, **characterized** in that different paper grades, including NP, SC, MFC, LWC and WFC grades, can be produced by regulating the number and/or nip load of the closed i.e. calendering nips (NC).

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10. A calender as claimed in any one of claims 4 to 9, **characterized** in that operation with one/some of the nips is favourably suitable for the production of lower-quality paper grades, such as NP, SC-C and MFC grades, and operation with all nips is favourably suitable for the production of high-quality paper grades, such as SC-A, SC-B, LWC and WFC grades.

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11. A calender as claimed in any one of claims 4 to 10, **characterized** in that at least one roll stack (11L, 11R) of the calender (10) includes power means (81, 82, 83) arranged between carrier arms (6), support arms or bearing housings of roll pairs (1, 2; 2, 3; 3, 4; 4, 5) formed by rolls placed one upon the other in order to adjust the nip load and/or to form an open nip (NO) and/or to form a closed nip

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(NC) between a roll pair by moving the rolls of the roll pair in a direction substantially towards each other or away from each other.

12. A calender as claimed in claim 11, **characterized** by carrier arms (6) of rolls
5 (1-5) of a roll stack (11L, 11R), which carrier arms are divided into two parts by means of an articulated joint (9).